WHITE-TAILED DEER

Historical Perspective

White-tailed deer (*Odocoileus virginianus*) were reported to be quite abundant when European settlers arrived in Iowa in the early 1800's. Although the clearing and cultivating of land for agriculture may have initially improved the suitability of the landscape for deer, uncontrolled exploitation for food and hides rapidly reduced deer numbers. By 1880 deer were rarely sighted in much of the state and in 1898 the deer season was legally closed. By this time deer had been virtually eliminated from all parts of the state.

Re-establishment of deer into the state can be traced to escapes and releases from captive herds and translocation and natural immigration from deer herds in surrounding states. A conservative estimate of the population in 1936 placed statewide numbers at between 500 and 700 animals. This small herd grew steadily. By 1950 deer were reported in most counties and the statewide estimate topped 10,000. Concentrations in some areas were beginning to cause problems by damaging agricultural crops. In response to these problems the first modern deer season was held in December of 1953 and 4,000 deer were killed. This spring the deer herd was estimated to be about 350,000 before the fawning season. The harvest in 1996 exceeded 100,000 for the first time ever.

Although deer are frequently associated with forested areas, deer are very adaptable and will utilize many different types of habitat as long as the area provides adequate cover. Examples of these types of areas include brushy draws and fence lines, marshes, and grassy areas like those provided by the federal Conservation Reserve Program (CRP). Standing corn also provides ideal habitat for part of the year since it provides food, cover and easy travel lanes. Urban environments may also prove to be good habitat for deer, especially if there are green belts, parks or other natural spaces nearby.

Deer utilize almost all plants for food at one time or another during the year. Deer feeding habits can best be described as being widely selective as deer will sample many plants while feeding but often utilize a single, palatable source of food for the majority of their diet. Preferred foods also change through the year in response to changing metabolic demands.

The whitetail's ability to thrive in Iowa is likely the result of an abundant, reliable food source and a winter climate where snow depths rarely exceed 12" for a prolonged length of time. These factors combine to allow deer to come through the "winter bottleneck" in excellent condition. The excellent nutrition also enables deer to have high reproductive rates. Many does in Iowa have a single fawn their first year and 2 fawns each subsequent year. Deer in the wild can maintain these high reproductive rates until they are past 10 years of age. Past research in Iowa has found that 8 to 12% of adult does have 3 fawns.

Another reason that deer do so well in Iowa is that they are very mobile. Although many deer never move far from the area where they were born, a significant number (10-20% on average) leave and travel to new areas before establishing a core area. These core areas may change seasonally with deer shifting between wintering areas and fawning

areas. These movements allow deer to fill voids left open due to deaths and changing habitat. Thus deer easily pioneer into new areas when habitat is suitable. The highest rates of movement occur during 2 periods of the year. The first is in the spring when does move to their fawning areas. Many of the previous year's fawns are forced to find areas of their own at this time. The second period is in the fall during the breeding season. The breeding season or rut begins in mid-October and runs through mid-January, although the peak of activity occurs in mid-November.

Careful management of deer populations by man has also played an important role in allowing deer numbers to return to the levels enjoyed today. Management consists primarily of regulating the doe harvest since hunting provides the major source of mortality for deer in Iowa today. Unchecked, Iowa's deer herd could grow at a rate of 20% to 40% each year. At this rate, deer numbers would double in as few as 3 years. With Iowa's agricultural crops providing abundant food, densities could exceed 100 or more deer per square mile in year-round deer habitat before natural regulatory mechanisms would begin to affect deer health and slow the rate of growth. Deer numbers this high would cause severe economic hardship to Iowa's landowners as well as alter the natural vegetative community. Maintaining a deer population in balance with the wants and needs of the people in the state is a difficult task and hunting is the only viable management option to achieve this goal.

2006-2007 Hunting Season Results

This hunting season represented the first year in a change of methodology in collecting harvest information in Iowa. Hunters were required to report their harvest by calling in the information or reporting it online at the Department's web site. The reported kill for the 2006-2007 season was 150,552 (Table 1.1) which is about 29% lower than in 2005 (Table 1.2). The hunting season of 2005 represents the record harvest year for Iowa under the former harvest estimation system. The considerations of utilizing a new harvest reporting system and its compatibility with the former system are discussed below.

Antlerless deer represented 61% of the 2006 harvest and 52% of the total harvest was comprised of does (Table 1.3). The proportions represented 6% and 4% decreases for antlerless deer and does respectively when compared to the 2005 season. Twelve percent of the reported doe kill occurred during the November and January antlerless seasons. The reported number of antlered deer in the harvest was 15% lower than in 2005 and represented 39% of the 2006 harvest.

Caution should be used when comparing the reported harvest and license success rates for this year to the harvest estimates and success rates from past years since the techniques used to record/estimate the harvest are very different.

No post-season harvest survey was conducted after the 2006 season. Information (registration numbers, age and sex, county of kill, etc.) was collected from over 2,700 deer checked in the field and at lockers for CWD as well as deer brought to lockers for the HUSH program to determine what proportion of successful hunters reported their deer. Preliminary examination of this data indicates that 95% of the deer that were encountered in the field were reported. There is a potential for bias with this data since all of these situations require the hunter to take the deer to a locker or have contact with a DNR official or someone in

an official capacity. People in these situations may be more likely to report their deer than would someone who hadn't talked with a DNR official or someone who doesn't take their deer to a locker. Recent deer hunter surveys indicate that about 1/3 of Iowa's deer hunters completely process their deer themselves. However, gathering data from these individuals is problematic since there is no way to gather the data without someone from or working with the DNR contacting them. The data does suggest that a large proportion of the actual kill was reported.

The reported kill can be compared indirectly with last year's harvest estimate by using the results from the 2005 harvest survey to predict what the 2006/2007 harvest survey results would have been had the survey been run. In the past these extrapolations have been fairly close to the final harvest estimate from the postcard survey. This doesn't necessarily mean that estimates from the post-season harvest surveys were accurate; it just means that the survey results were consistent from year to year. This consistency is actually very important when making management decisions, even if the estimate is biased.

The "expected kill" was calculated by taking the estimated success rates from 2005 times the number of licenses issued in 2006. This technique works best if the calculations are done for each license type in each season. For example the expected harvest was calculated for hunters in the youth season with; paid either-sex licenses, paid antlerless licenses, landowner/tenant either-sex licenses and landowner/tenant antlerless licenses. For simplicity only the totals for each season are presented in Table 1.4. The final column in the table lists the difference between the expected and reported kill. This is not the percent of the actual kill since the actual kill is unknown.

Based upon the results from the 2005 survey, the "expected" harvest estimate for 2006/2007 would have been about 208,000 deer which is only about 2% lower than the estimate of 211,451 for last season. The reported harvest (150,552) is 28% lower than the expected harvest of 207,920. The reported harvest is consistently lower for all seasons, ranging from 81% for the early muzzleloader season to 58% for the late muzzleloader season.

If we assume the relationship between the expected harvest and the reported harvest would have been the same had we reported deer in the past it is possible to "convert" the post season harvest estimates so that they can be compared with this year's reported harvest. For example if we had used the harvest reporting system last year we would expect that the reported kill in 2005 would have been 153,367 deer instead of the estimate of 211,451 using the postcard survey. Figure 1.1 compares the post season harvest estimates with the "converted" harvest reports since 1985. It also shows what the actual kill would have been if 90% of the deer were actually reported each year. Ninety percent was used rather than 95% because of the potential bias in the information from deer collected at lockers.

Utilizing this information, an estimate of the number of antlered bucks, does, and button bucks killed in 2006 can be made if 90% of the actual harvest were reported. In Figure 1.2, estimates from 1985-2006 have been constructed on the assumption that the relationship between the reported harvest and the post-season mail survey would have been consistent through time and that 90% of the harvest

would have been reported if the current system had been in place.

There were just over 10,000 fewer deer licenses issued (400 more antlerless licenses but 11,000 fewer either-sex licenses) for the 2006/2007 deer season compared to 2005 (Table 1.5). The number of paid licenses increased by 15,900 while the number of landowner/tenant licenses decreased by 26,500.

The season framework was very similar to 2005 (Table 1.6). This was the 11th year for the special January season and the 2nd year for the November Antlerless season. However, in 2006, there were 40 counties in northern and central Iowa that were closed during these seasons (Figure 1.3). In 2005, all 99 counties in Iowa were open for these seasons. Landowners could get 1 free either-sex license and 2 free antlerless licenses in addition to the regular tags a deer hunter could legally obtain. However, in 2006, landowners and tenants were required to provide documentation and register their property with the DNR before they could obtain any licenses. Seventy-nine counties had additional antlerless licenses available that could be used in both shotgun seasons, the late muzzleloader season, and the bow season. Twenty counties in northern and central Iowa had no antlerless quotas (Figure 1.3). Hunters in all seasons could obtain an unlimited number of antlerless licenses but were limited to the purchase of 3 licenses prior to 11 November. Antlerless licenses were restricted to a specific county and season.

About 3,000 deer were taken during special management hunts in urban areas and state and county parks and another 1,050 deer were taken on special depredation tags issued to landowners with damage problems (Table 1.6).

Six of the top 8 counties for total kill were in the northeast portion of the state. Clayton was the top county for total kill with 7,389 deer or about 9.5 deer per square mile (Tables 1.8 & 1.3). Calhoun County had the lowest kill with a reported 159 deer or only about 0.25 deer per square mile.

Shotgun Season

The reported kill during the shotgun seasons was 25% lower than the estimate for 2005 (Table 1.1).

Antlered bucks made up about 41% of the total kill, while does made up 49% of the kill. The rest were buck fawns.

There were 86,620 paid resident licenses sold for the first season and they resulted in 47,683 deer reported killed, while 63,030 paid resident licenses resulted in 28,535 deer reported during the second season. This translates to a 55% license success rate for first season hunters and 45% for second season hunters.

Antlered bucks and does made up essentially equal portions of the first season at 46% and 45%, respectively. During the second season does made up the majority of the harvest at 53%. Antlerless deer made up 54% of the kill during the first season and 63% of the kill during the second season.

Deer kill (Figure 1.4) was highest in eastern and southern Iowa during both seasons as would be expected due to deer densities and hunting opportunities.

Does made up less than 50% of the kill in most counties during the first season (Figure 1.5). However, does made up over 50% of the harvest in most counties during the second season.

The precision of the location of the reported harvest should be better than the previous survey method due to a much larger sample size. Assuming that any biases in reporting are consistent between

counties, some generalizations can be made regarding harvest distribution (Tables 1.8 and 1.3). Overall, regulations appear to be fairly effective in allowing more deer to be taken in southern and eastern Iowa (Figure 1.6). Changes for 2006 also appear to have maintained higher levels of doe harvest in the targeted areas of the state (Figure 1.7) as does make up over 50% of the harvest in the majority of these counties.

Bonus January Season

For 2006, the number of counties open for special January season was reduced to 59 due to meeting or nearing herd objectives in portions of the state (Figure 1.3). All licenses issued for this season were for antlerless deer only. The season was the same length for all counties (11-21 January) but centerfire rifles could be used during the last 7 days in designated southern counties. A total of 24,147 licenses were issued, which is 22% less than last year with 27% of them being reported as filled (Table 1.1).

The reported kill during this season increased the total kill by 4.6% and doe kill by 8% statewide but the impact in some counties was much greater. The harvest increased the county kill by up to 25% and the doe kill by over 40% in some counties in southern Iowa (more common figures were 15-20% and 20-30%, respectively). Hunters reported that 85% of the deer taken were does and 14% were buck fawns. However, the reporting system did not have a category for bucks that had shed their antlers (this will be added in 2007). This probably made hunters reluctant to report a shed-antlered buck as an "antlered" buck. It is more likely that shed-antlered bucks represented approximately 4% of the harvest as it has in previous years. The incidental kill of this number of shed-antlered bucks would have increased the number of adult bucks killed during the 2006 deer season by less than 1%.

November Antlerless Season

This season was initiated during the 2005 hunting season. The season runs for 3 days beginning the Friday after Thanksgiving. The licenses for this season did not go on sale until November 11. The reason for the delay was to only have this season in those counties where the county antlerless licenses quota had not filled.

About 11,700 licenses were issued (a 31% decline from 2005) and hunters reported killing about 4,100 deer during this season. Eighty-five percent of the deer killed were does. The kill during this new season increased the total kill by 3% and the doe kill by 5% statewide (Table 1.1).

Again, the harvest was directed to counties in eastern and southern Iowa where the impact was greater. Although delaying the purchase date of these licenses probably lessened the impact of this hunt somewhat, there were still many counties where the harvest during this season increased the number of does killed by 10-15%.

Archery

The reported harvest for 2006 was about 24,450 deer which was 31% lower than the estimated record harvest in 2005 (Table 1.2). The number of licenses issued increased by 7% over the previous year to 81,508 (Table 1.1). Hunters reported that 35% of the antlerless licenses were used to tag a deer.

Fifty-seven percent of the deer taken by archers were male and 52% were antlered bucks (Table 1.9).

Muzzleloader

The reported kill during the early muzzleloader season was 5,431 (25% decline from 2005 estimates) and license sales were down 8% (Table 1.1). About 43% of the licenses purchased were reported to have been used to tag a deer. Bucks made up 55% of the kill, with antlered bucks making up about 46% of the total (Table 1.10).

The kill during the late muzzleloader season was reported to be 9,376 (Table 1.1). Over 59% of the deer taken were does and 31% of the deer killed during the late muzzleloader season were antlered bucks.

Nonresidents

Of the 6,009 any-deer licenses issued, 3,063 or 51% went to hunters during the shotgun seasons, 2,098 or 35% to bowhunters, and 841 or 14% to late season muzzleloader hunters. An additional 9,498 antlerless licenses were issued. Of these, 5,303 went to hunters during the shotgun season, 3052 went to bowhunters, 977 went to late season muzzleloader hunters and 158 went to hunters participating in the holiday season that ran from December 24 to January 2.

In regards to any-deer licenses, about 50% of the shotgun licenses, 34% of the muzzleloader licenses and 28% of the archery licenses were reported as being used to tag a deer. Less than 5% of the deer killed by nonresidents with any-deer licenses were does. Overall, nonresidents reported harvesting about 2,900 antlered bucks, 3,150 does, and 300 button bucks. The license success rate was 41% and the harvest consisted of 49% does.

Special Youth/Disabled Hunter Season

The number of licenses issued for this special season was 47% higher than in 2005 (Table 1.1). In 2006, the minimum age restriction and Hunter Education criteria were removed from the Youth hunt. Also, an any-deer license purchased by either a Youth or Disabled season hunter did not count towards the maximum number of any-deer licenses allowed in Iowa. Only 158 licenses or roughly 3% of the total were issued to disabled hunters.

Thirty-eight percent of the licenses were reported to be used to tag deer. About 55% of the deer reported were antlerless deer.

Special Deer Management Zones

Special management hunts were conducted at 47 locations in 2006-2007 and about 3,000 deer were harvested (Table 1.7). These hunts are designed to meet the management needs of areas such as state and county parks and urban areas that are not suitable to be opened to general regulations. Most deer taken were antlerless and deer tagged did not count against a hunter's regular license purchases or bag limit. Most hunts were very successful in removing deer in these problem areas. An additional 2,219 tags were issued in depredation situations where hunters killed another 1,052 deer. This is a little lower than in 2005.

Population Surveys

Three techniques are used to monitor deer population trends in Iowa. These are 1) an aerial survey conducted in January - March after the deer seasons are complete, 2) a spotlight survey conducted in April, and 3) a record of the number of deer killed on Iowa's rural highways throughout the year. All of these surveys correlate well with the reported harvest over

the last 15 years and appear to provide reliable long-term trend indices. However, none of these surveys can be considered absolutely reliable predictors of annual changes in the population because of high variability in the survey conditions.

Deer populations for the state as a whole appear to have leveled off or declined in the past two years after steadily increasing during the previous 3 to 4 years (Figure 1.8). All 3 surveys are still higher than they were during the last time deer numbers peaked in the late 1980's (Table 1.11).

The aerial survey conducted after the 2006 hunting season (Jan-Mar 2007) was up approximately 7%. Conditions for this survey were improved over the previous year with twice as many surveys being completed (333 surveys, over 90% of total). Aerial counts declined over the past 2 years as would be expected but the declines may have been partially influenced by survey conditions in addition to any actual declines in deer numbers. The increase observed during the last round of surveys may also have been influenced by the improved survey conditions. There has been a lot of variability in counts on individual areas.

The number of deer killed on rural highways increased by about 4% in 2006. The estimated number of vehicle miles driven increased about 1% so the adjusted roadkill (kills per billion miles – kbm) increased about 3%. In general, the rate of roadkills (kbm) has been relatively flat over the last few years.

The number of deer counted per 25 mile route on the spotlight survey increased by about 16% in 2007. The counts over the past few years seemed to be stabilizing and beginning to decline before this year's increase.

Utilizing the mathematical relationships described earlier to plot estimated harvests and harvest structures from 1985-2006, the data was used in the population model and the resulting "best fit" simulation has about 375,000 deer after the 2006 season (Fig 1.8). This is only about 2% lower than postseason estimates when the simulation peaked 2005 postseason. The model has a very strong correlation with the spotlight survey and good correlation with the aerial and roadkill index.

Outlook for 2007

Hunters will see several changes in the 2007/2008 deer seasons. Regulations will again allow all hunters to take deer of either-sex in both shotgun and muzzleloader seasons in all counties. These regulations may decrease the number of hunters that hunt during the second shotgun season.

The biggest changes for 2007 are designed to increase the number of does killed in portions of eastern, southern, and southwestern Iowa. The number of antlerless licenses available for 2007/2008 is 112,900 which is 13,050 more than was available in 2006/2007. The antlerless quotas were eliminated in 2 counties, bringing the total to 22 counties in Iowa without an antlerless license quota. These counties are all located in the northwest and central portions of the state. The quotas were reduced in 2 additional counties, remained the same in 32 counties, and were increased in 43 counties.

In another change, the January antlerless season was lengthened and centerfire rifles will be legal the entire season in 21 counties in southern Iowa.

Hunters again will be allowed to obtain antlerless licenses in every season. The limit on the number of licenses a hunter can obtain is 1 until September 15, and

unlimited after that date. The objective of these regulations is to bring deer numbers back to the 1995-96 levels in the targeted areas.

Youth season hunters who do not take a deer during the Youth deer hunting season may use the deer hunting license and unused tag during the early or late muzzleloader seasons or one of the two shotgun seasons.

White-tailed Deer (doe)

Figure 1.1. A comparison of the post-season harvest estimates from 1985-2005 and the expected harvest in 2006 (the top line) with the reported harvest in 2006 and the converted harvest from 1985-2005 (the bottom line). The dotted line would be the "actual" harvest if 90% of the deer were reported in 2006 and in prior years.

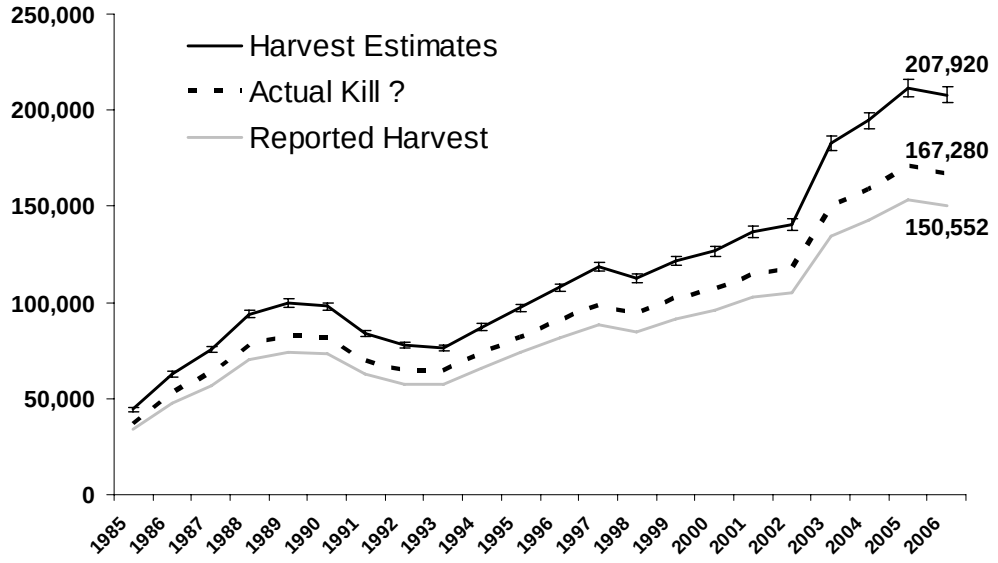


Figure 1.2. An estimate of the number of antlered bucks, does, and button bucks killed in 2006 if 90% of the actual harvest were reported. The estimates from 1985 -2005 assume the relationship between the reported harvest and the post-season mail survey would have been consistent in the past and that 90% of the deer were reported each year.

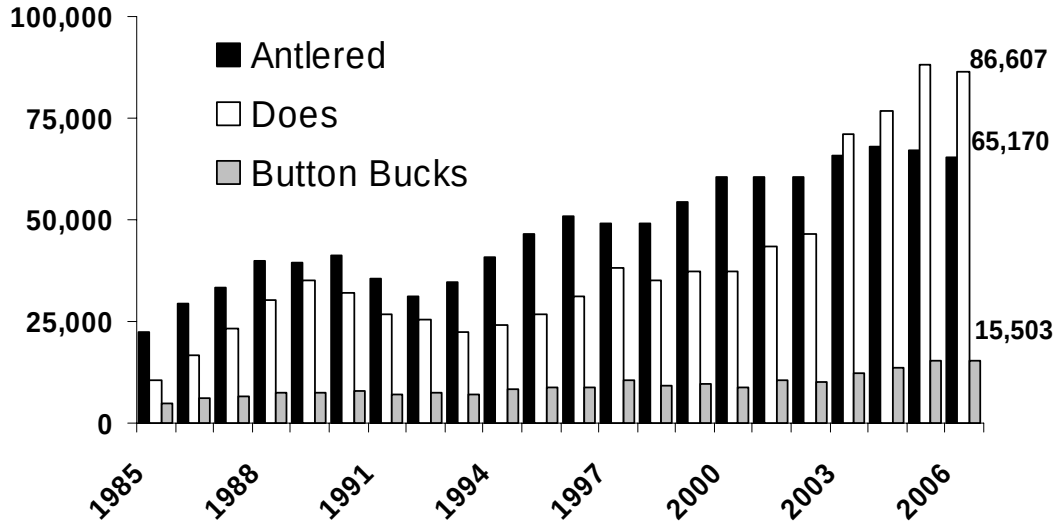


Figure 1.3. 2006/07 resident antlerless-only license quotas by county and potential distribution of November and January antlerless-only seasons. All counties were either-sex during all seasons in 2006-2007.

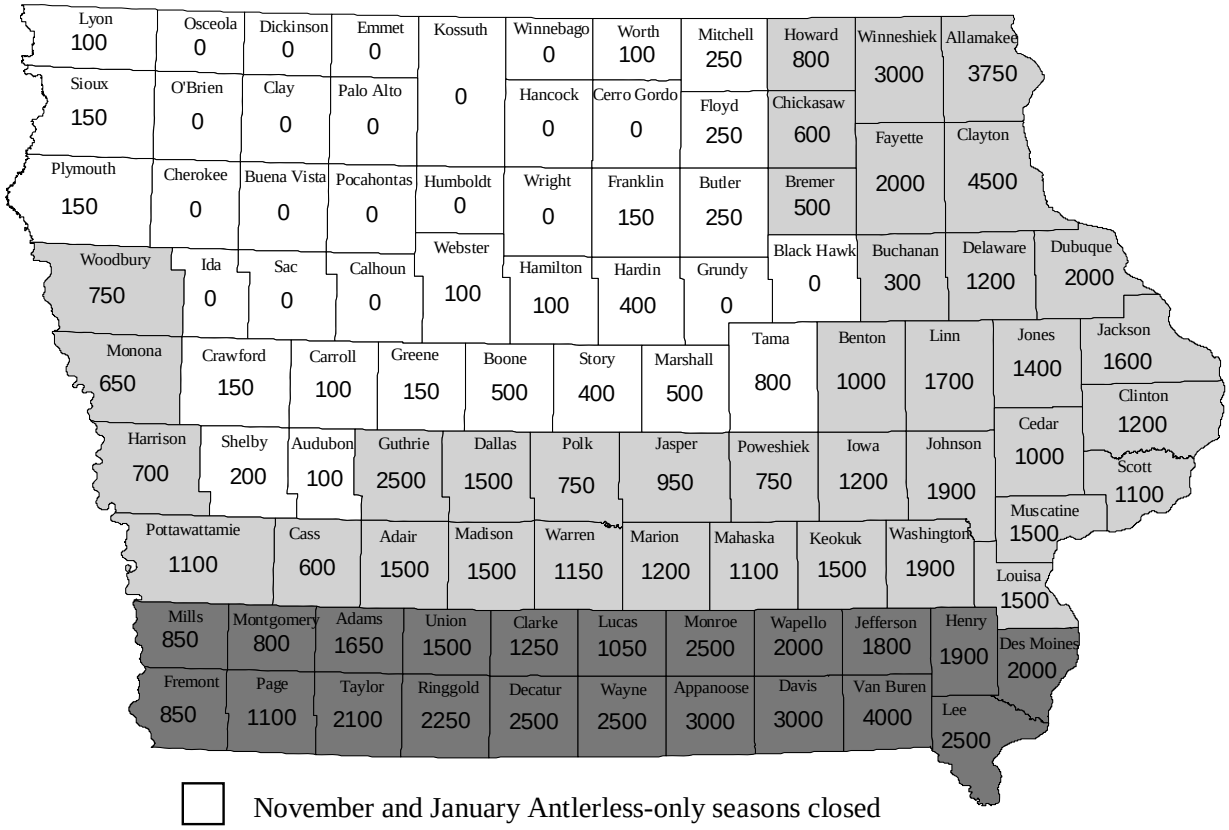
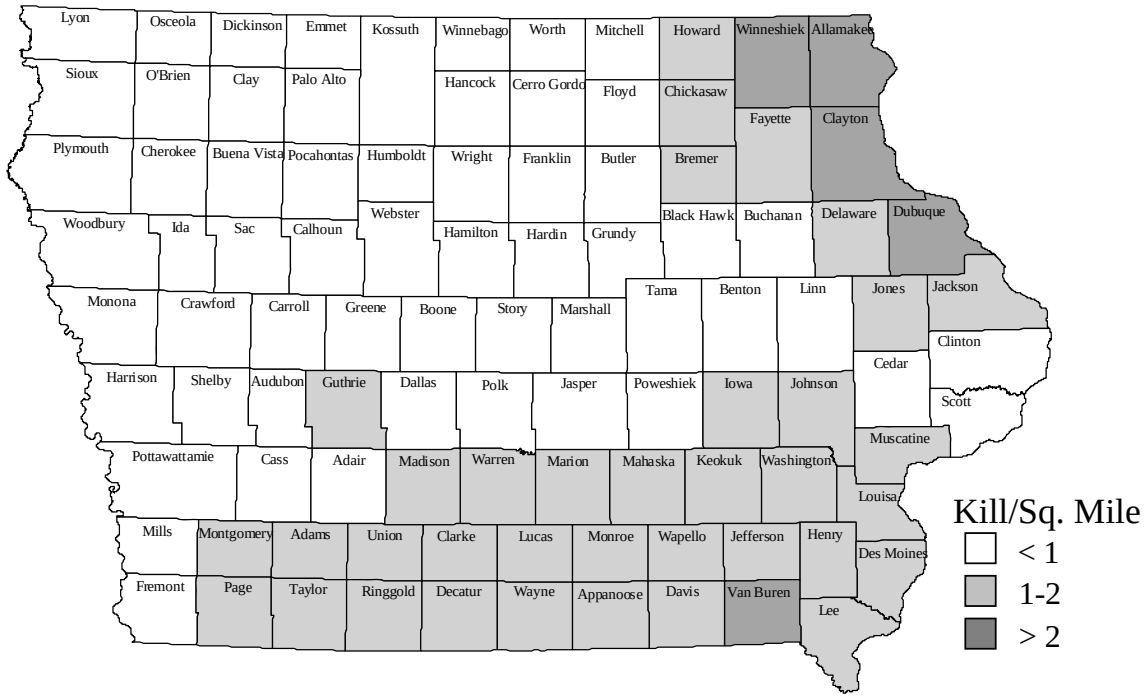
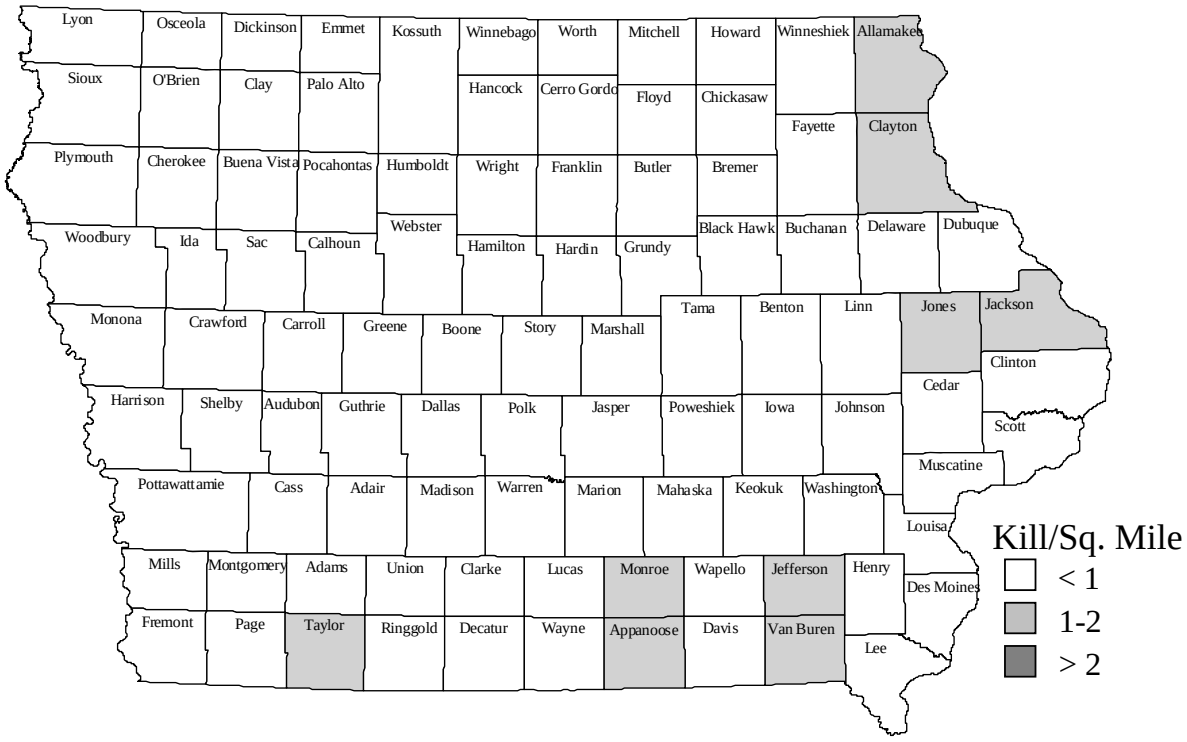


Figure 1.4. The reported average number of deer killed per square mile in each county during the 2006 shotgun seasons. The kill by hunters with free landowner/tenant licenses was not included since their licenses were valid for both seasons.

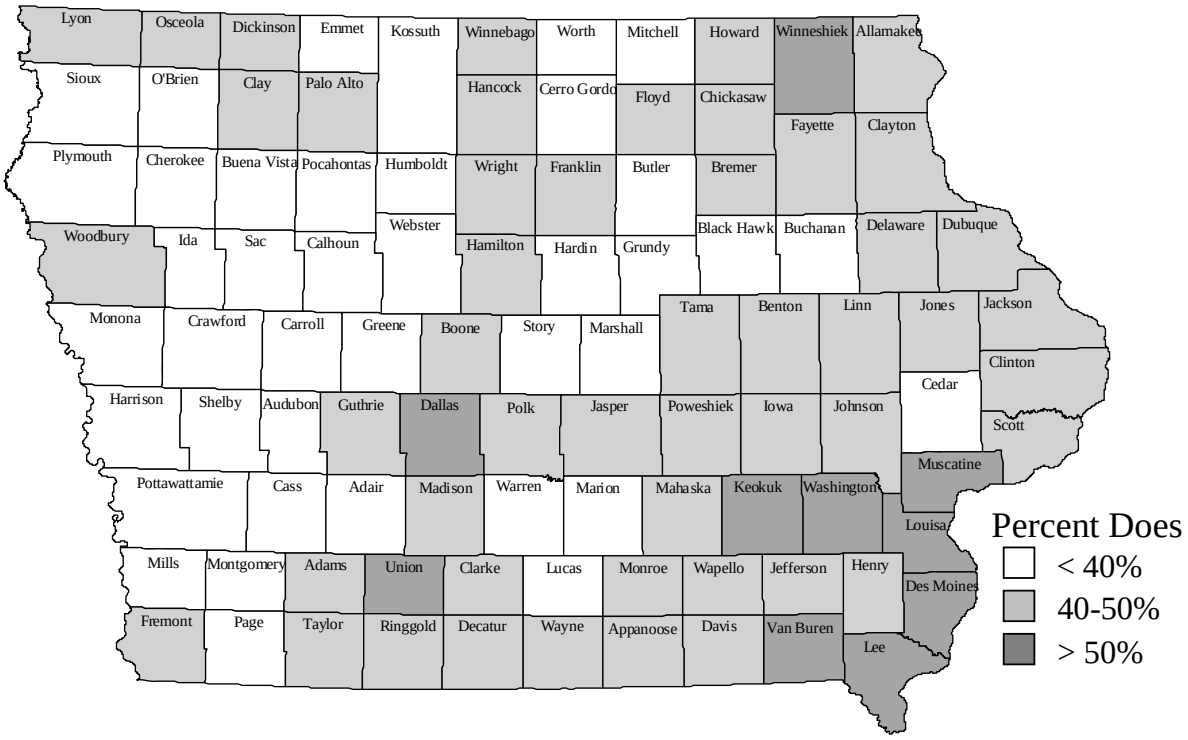


Season 1

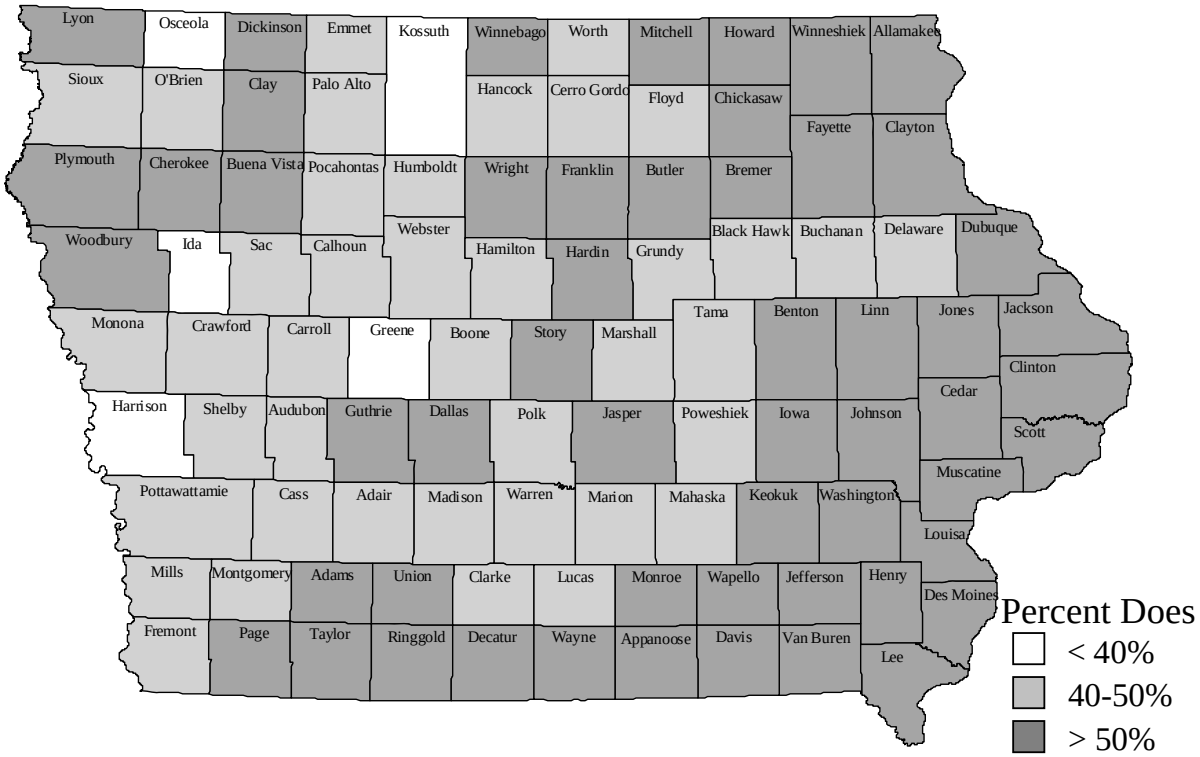


Season 2

Figure 1.5. The proportion of the reported harvest by hunters with paid licenses that were does during the 2006 shotgun seasons. The kill by hunters with free landowner/tenant licenses are not included since their licenses are valid for both seasons.



Season 1



Season 2

Figure 1.6. The reported average number of deer killed per square mile in each county during the 2006 - 2007 deer season.

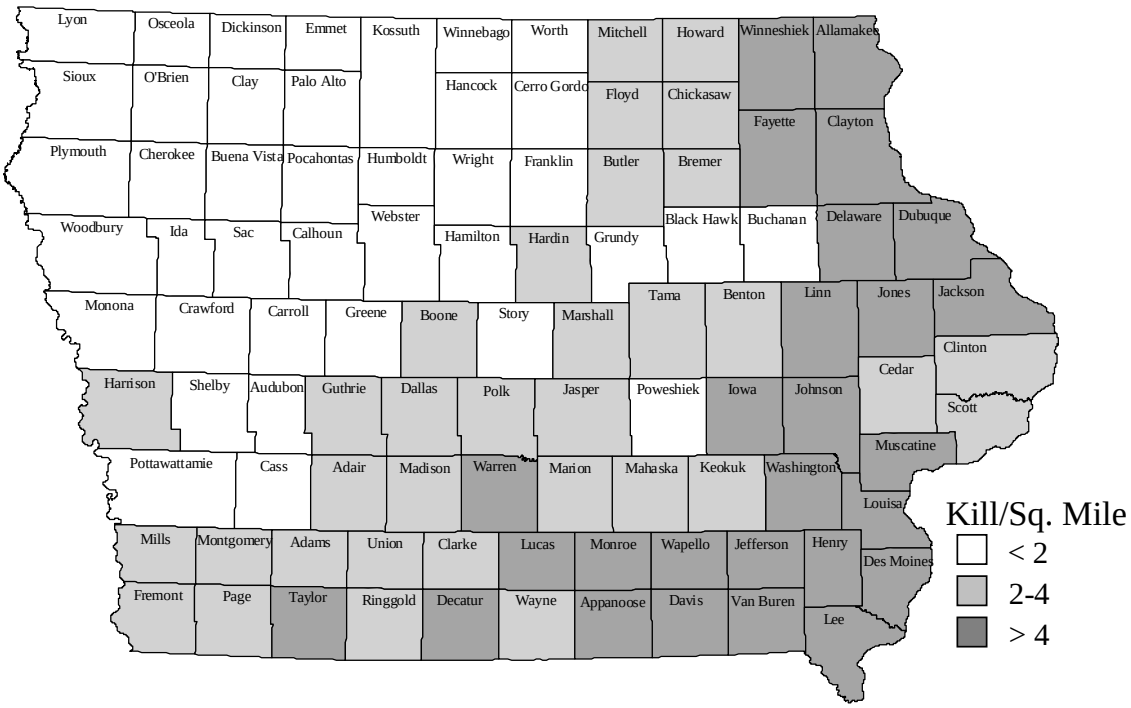


Figure 1.7. The proportion of the reported harvest that were does in each county during the 2006-2007 deer season.

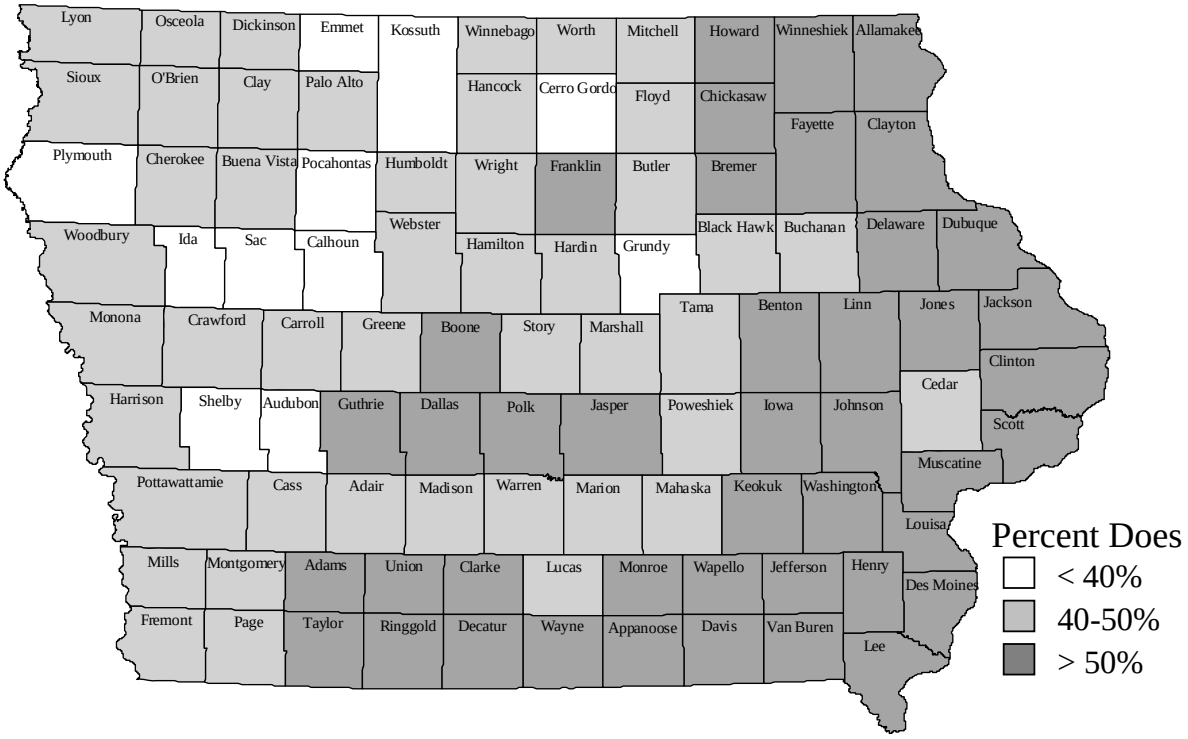


Figure 1.8. A comparison of the results from the statewide population simulation with deer population trend surveys. This simulation uses the 2006 harvest from the reporting system and a reporting rate of 90%.

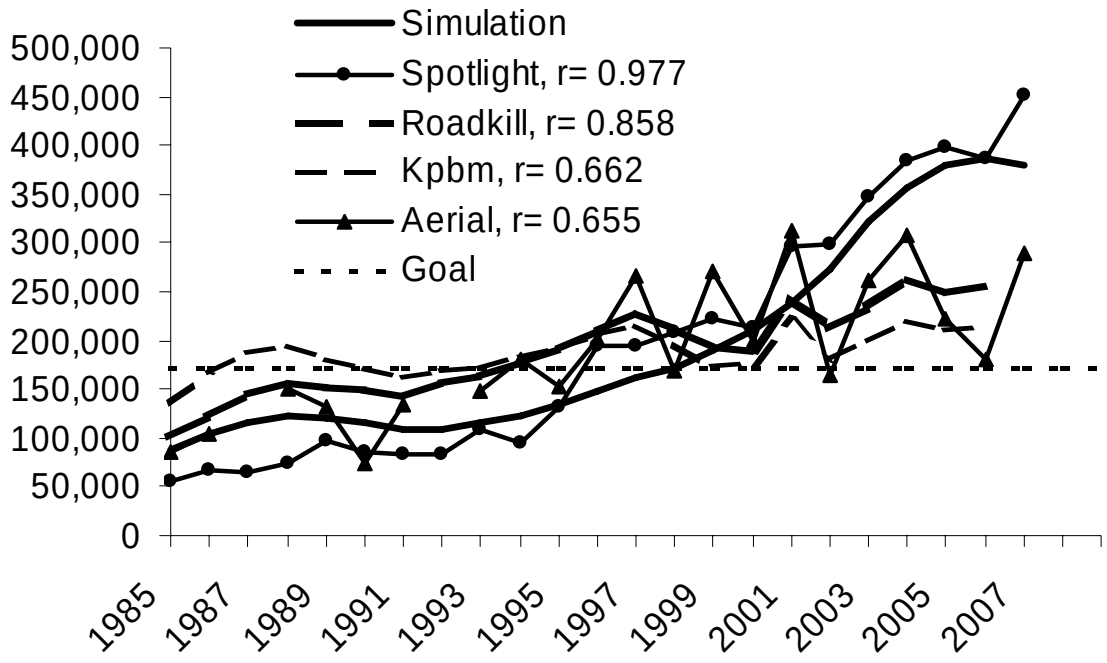


Table 1.1. A summary of the number of licenses issued, the number of deer harvested, and success rates for the 2006-2007 season.

Season		License Type	Licenses Issued		Number of Hunters *c*	Harvest *d*		Success Rate *e*
REGULAR GUN								
Season 1	Paid	Either-sex	69,324		69,324	37,028		53%
		Antlerless	17,296		10,974	10,655		62%
Season 2		Either-sex	48,346		48,346	20,485		42%
		Antlerless	14,684		8,954	8,050		55%
	Nonresident	Both	8,366		5,303	4,222		50%
		Total	158,016	(+ 6%) *a*	142,901	80,440	(-19%)	51%
Season 1 & 2	Landowner	Either-sex	26,149		26,149	8,921		34%
		Antlerless	14,682		12,448	6,035		41%
		Total	40,831	(-30%)	38,597	14,956	(-47%)	37%
GUN SEASON TOTAL			**198,847**	**(- 4%)**	**181,498**	**95,396**	**(-25%)**	**48%**
MUZZLELOADER								
Early	Paid	Either-sex	7,500		7,500	3,336		44%
		Antlerless	1,973		1,417	1,049		53%
	Landowner	Both	3,191		3,126	1,046		33%
		Total	12,664	(- 8%)	12,043	5,431	(-25%)	43%
Late	Paid	Either-sex	16,638		16,638	4,195		25%
		Antlerless	11,243		8,169	3,552		32%
	Landowner	Both	4,611		4,433	951		21%
	Nonresident	Both	1,976		1,818	678		34%
		Total	34,468	(+ 7%)	31,058	9,376	(-36%)	27%
MUZZLELOADER TOTAL			**47,132**	**(+ 3%)**	**43,101**	**14,807**	**(-32%)**	**31%**
NOVEMBER ANTLERLESS SEASON								
	Paid	Antlerless	10,389		8,516	3,776		36%
	Landowner	Antlerless	1,296		1,222	365		28%
		Total	**11,685**	**(-31%)**	**9,738**	**4,141**	**(-51%)**	**35%**
JANUARY ANTLERLESS SEASON								
	Paid	Antlerless	16,340		11,212	5,376		33%
	Landowner	Antlerless	7,807		7,390	1,227		16%
		Total	**24,147**	**(-22%)**	**18,602**	**6,603**	**(-51%)**	**27%**
YOUTH	Paid	Both	5,636		5,618	2,154		38%
	Landowner	Both	163		163	41		25%
	Disabled	Both	158		136	67		42%
		Total	**5,957**	**(+47%)**	**5,917**	**2,262**	**(+ 2%)**	**38%**
ARCHERY	Paid	Either-sex	47,271		47,271	12,044		25%
		Antlerless	22,894		14,534	8,070		35%
	Landowner	Both	6,193		5,906	1,894		31%
	Nonresident	Both	5,150		5,150	1,434		28%
		Total	**81,508**	**(+ 7%)**	**72,861**	**23,442**	**(-31%)**	**29%**
TOTAL *b*			**377,525**	**(- 4%)**	**339,966**	**150,552**	**(-29%)**	

a - the numbers in parentheses are the percent change from 2005-2006, NC = < 0.5%

b - total include licenses and kill from hunts in special deer management zones and depredation licenses

c - number of individuals with licenses, not comparable with previous years estimates

d - reported kill, not comparable to previous estimates

e – licenses reported successfully filled, not comparable to previous estimates

Table 1.2. Historical data on deer harvest by license type (1987-present). Grand Total includes IAAP harvest, special management unit hunts, nonresidents, and youth.

	Regular Gun			Muzzleloader				Grand
Year	Paid	Landowner	Total	Early	Late	Total	Archery	Total
1987	53,230	10,270	63,500	1,509	1,027	2,536	9,722	75,758
1988	66,757	13,298	80,055	1,835	1,294	3,129	9,897	93,756
1989	67,606	12,963	80,569	2,619	3,715	6,334	11,857	99,712
1990	69,101	9,095	78,196	2,819	5,884	8,703	10,146	98,002
1991	56,811	11,575	68,386	3,120	2,766	5,886	8,807	83,635
1992	50,822	10,453	61,275	3,316	3,231	6,564	8,814	77,684
1993	52,624	8,354	60,978	2,219	2,883	5,102	9,291	76,430
1994	59,054	8,735	67,789	2,610	3,196	5,806	12,040	87,231
1995	65,206	7,917	73,123	2,831	3,408	6,363	13,372	97,256
1996	71,577	10,896	82,473	2,895	4,558	7,453	12,314	107,632
1997	77,169	10,588	87,757	4,062	5,508	9,570	14,313	118,404
1998	73,165	9,989	83,154	4,448	5,343	9,791	12,302	112,608
1999	74,362	12,966	87,328	5,277	5,329	10,606	15,266	121,635
2000	77,743	13,189	90,932	4,585	5,936	10,521	17,727	126,535
2001	82,721	14,801	97,522	4,593	7,320	11,913	18,798	136,655
2002	77,940	18,932	96,872	5,091	7,772	12,863	20,703	140,490
2003	96,757	25,353	122,110	6,155	12,049	18,204	26,486	182,856
2004	97,830	26,333	124,163	6,818	13,550	20,368	30,025	194,512
2005	96,110	27,988	124,098	7,209	13,930	21,139	32,986	211,451
2006	76,218	14,956	91,174	5,431	8,698	14,129	22,008	150,552

Table 1.3. Reported deer by county for total kill during the 2006-2007 deer season.

					Percent of kill		
	Antlered		Button			Antlered	Kill/
County	Bucks	Does	Bucks	Total	Does	Bucks	Sq. Mile
Adair	578	596	115	1,289	46.2%	44.8%	2.27
Adams	502	793	120	1,415	56.0%	35.5%	3.32
Allamakee	1,794	2,421	355	4,570	53.0%	39.3%	7.19
Appanoose	1,006	1,730	266	3,002	57.6%	33.5%	5.74
Audubon	180	127	21	328	38.7%	54.9%	0.73
Benton	541	781	145	1,467	53.2%	36.9%	2.04
Black Hawk	440	414	110	964	42.9%	45.6%	1.70
Boone	483	584	81	1,148	50.9%	42.1%	2.00
Bremer	544	795	181	1,520	52.3%	35.8%	3.46
Buchanan	452	470	101	1,023	45.9%	44.2%	1.80
Buena Vista	171	168	33	372	45.2%	46.0%	0.65
Butler	599	629	134	1,362	46.2%	44.0%	2.34
Calhoun	82	61	16	159	38.4%	51.6%	0.28
Carroll	225	179	36	440	40.7%	51.1%	0.77
Cass	532	480	75	1,087	44.2%	48.9%	1.94
Cedar	779	963	193	1,935	49.8%	40.3%	3.31
Cerro Gordo	286	187	46	519	36.0%	55.1%	0.90

Table 1.3 (cont.). Reported deer by county for total kill during the 2006-2007 deer season.

					Percent of kill		
	Antlered		Button			Antlered	Kill/
County	Bucks	Does	Bucks	Total	Does	Bucks	Sq. Mile
Cherokee	295	323	100	718	45.0%	41.1%	1.25
Chickasaw	555	700	142	1,397	50.1%	39.7%	2.77
Clarke	587	754	135	1,476	51.1%	39.8%	3.44
Clay	281	318	58	657	48.4%	42.8%	1.15
Clayton	2,777	4,045	567	7,389	54.7%	37.6%	9.49
Clinton	746	1,039	218	2,003	51.9%	37.2%	2.89
Crawford	443	364	57	864	42.1%	51.3%	1.21
Dallas	570	774	106	1,450	53.4%	39.3%	2.43
Davis	1,054	1,790	326	3,170	56.5%	33.2%	6.23
Decatur	710	1,263	195	2,168	58.3%	32.7%	4.09
Delaware	966	1,368	211	2,545	53.8%	38.0%	4.45
Des Moines	644	1,085	168	1,897	57.2%	33.9%	4.65
Dickinson	132	141	21	294	48.0%	44.9%	0.77
Dubuque	1,113	1,821	288	3,222	56.5%	34.5%	5.26
Emmet	153	115	24	292	39.4%	52.4%	0.74
Fayette	1,238	1,621	307	3,166	51.2%	39.1%	4.35
Floyd	470	531	119	1,120	47.4%	42.0%	2.23
Franklin	247	299	46	592	50.5%	41.7%	1.01
Fremont	534	627	95	1,256	49.9%	42.5%	2.40
Greene	302	299	54	655	45.6%	46.1%	1.15
Grundy	103	59	19	181	32.6%	56.9%	0.36
Guthrie	872	1,171	196	2,239	52.3%	38.9%	3.76
Hamilton	192	215	44	451	47.7%	42.6%	0.78
Hancock	111	116	17	244	47.5%	45.5%	0.43
Hardin	544	541	94	1,179	45.9%	46.1%	2.05
Harrison	695	693	145	1,533	45.2%	45.3%	2.20
Henry	570	997	198	1,765	56.5%	32.3%	4.01
Howard	443	649	124	1,216	53.4%	36.4%	2.58
Humboldt	151	132	29	312	42.3%	48.4%	0.72
Ida	119	71	20	210	33.8%	56.7%	0.49
Iowa	896	1,332	237	2,465	54.0%	36.3%	4.22
Jackson	1,414	1,846	364	3,624	50.9%	39.0%	5.63
Jasper	655	837	165	1,657	50.5%	39.5%	2.26
Jefferson	665	1,119	183	1,967	56.9%	33.8%	4.51
Johnson	1,086	1,641	284	3,011	54.5%	36.1%	4.86
Jones	1,011	1,396	317	2,724	51.2%	37.1%	4.66
Keokuk	701	1,015	150	1,866	54.4%	37.6%	3.22
Kossuth	255	180	50	485	37.1%	52.6%	0.50
Lee	799	1,263	229	2,291	55.1%	34.9%	4.35
Linn	953	1,686	317	2,956	57.0%	32.2%	4.12
Louisa	590	991	190	1,771	56.0%	33.3%	4.39
Lucas	742	879	188	1,809	48.6%	41.0%	4.17
Lyon	233	200	36	469	42.6%	49.7%	0.80
Madison	931	1,001	178	2,110	47.4%	44.1%	3.74
Mahaska	680	777	184	1,641	47.3%	41.4%	2.87
Marion	954	1,072	234	2,260	47.4%	42.2%	3.99
Marshall	514	543	116	1,173	46.3%	43.8%	2.04
Mills	488	504	82	1,074	46.9%	45.4%	2.40
Mitchell	444	445	77	966	46.1%	46.0%	2.07

Table 1.3 (cont.). Reported deer by county for total kill during the 2006-2007 deer season.

County	Antlered Bucks	Does	Button Bucks	Total	Percent of kill Does	Percent of kill Antlered Bucks	Kill/ Sq. Mile
Monona	625	619	142	1,386	44.7%	45.1%	1.98
Monroe	822	1,474	219	2,515	58.6%	32.7%	5.78
Montgomery	559	577	107	1,243	46.4%	45.0%	2.95
Muscatine	629	991	183	1,803	55.0%	34.9%	4.07
O'Brien	162	133	22	317	42.0%	51.1%	0.55
Osceola	112	103	29	244	42.2%	45.9%	0.61
Page	676	787	154	1,617	48.7%	41.8%	3.02
Palo Alto	206	190	33	429	44.3%	48.0%	0.77
Plymouth	291	207	42	540	38.3%	53.9%	0.63
Pocahontas	141	84	21	246	34.1%	57.3%	0.42
Polk	479	691	107	1,277	54.1%	37.5%	2.15
Pottawattamie	784	758	135	1,677	45.2%	46.8%	1.74
Poweshiek	463	551	116	1,130	48.8%	41.0%	1.92
Ringgold	673	1,067	195	1,935	55.1%	34.8%	3.60
Sac	263	189	34	486	38.9%	54.1%	0.84
Scott	516	790	130	1,436	55.0%	35.9%	3.16
Shelby	270	186	15	471	39.5%	57.3%	0.80
Sioux	198	201	48	447	45.0%	44.3%	0.58
Story	263	318	77	658	48.3%	40.0%	1.16
Tama	828	985	156	1,969	50.0%	42.1%	2.73
Taylor	911	1,367	200	2,478	55.2%	36.8%	4.69
Union	559	892	122	1,573	56.7%	35.5%	3.70
Van Buren	1,428	2,847	467	4,742	60.0%	30.1%	9.74
Wapello	652	1,093	191	1,936	56.5%	33.7%	4.43
Warren	1,164	1,098	227	2,489	44.1%	46.8%	4.35
Washington	752	1,392	272	2,416	57.6%	31.1%	4.25
Wayne	685	1,082	185	1,952	55.4%	35.1%	3.67
Webster	454	390	83	927	42.1%	49.0%	1.29
Winnebago	156	135	19	310	43.5%	50.3%	0.77
Winneshiek	1,157	1,652	234	3,043	54.3%	38.0%	4.42
Woodbury	573	719	165	1,457	49.3%	39.3%	1.67
Worth	171	165	46	382	43.2%	44.8%	0.96
Wright	209	187	45	441	42.4%	47.4%	0.76
Total	58,653	77,946	13,953	150,552	51.8%	39.0%	2.69

Table 1.4. A comparison of the expected number of deer killed given the number of licenses sold in 2006 and the estimated success rates from 2005 to the reported kill for 2006.

	2005/2006		2006/2007			
		Estimated		Reported	Expected	Percent of expected that
	Licenses	Kill	Licenses	Kill	*Kill (a)*	was reported (*b*)
Youth/Disabled	4,057	2,215	5,942	2,252	*3,262*	69%
Early Muzzleloader	13,693	7,209	12,664	5,431	*6,676*	81%
Archery	73,518	32,986	76,358	22,008	*34,422*	64%
November Antlerless	16,841	8,473	11,685	4,141	*5,938*	70%
Gun 1 (Paid)	84,016	57,857	86,620	47,683	*59,515*	80%
Gun 2 (Paid)	59,834	38,253	63,030	28,535	*40,296*	71%
Gun 1 & 2 (LO/T)	58,247	27,988	40,831	14,956	*19,230*	78%
Late Muzzleloader	30,718	13,930	32,492	8,698	*14,920*	58%
January Antlerless	31,095	13,514	24,147	6,603	*10,521*	63%
Nonresident	9,343	5,073	15,550	6,370	*8,350*	76%
Other	6,738	3,947	8,188	3,875	*4,791*	81%
	388,100	**211,445**	**377,507**	**150,552**	***207,920***	**72%**

a – the expected number is calculated using the success rates from the 2005 season and the license sales for the 2006 season for the different license types (either-sex, antlerless, paid, landowner/tenant…) The number shown is a sum for all types within that season.

b – the percentage difference is calculated by dividing the reported kill by the expected kill

Table 1.5. Historical data on deer license issue by license type (1987 - present). Grand Totals include special IAAP licenses (1985-1990), 4074 special late season AS licenses for zone 6 (1985), nonresidents, special management unit hunts, and special youth licenses.

	Regular Gun			Muzzleloader				Grand
Year	Paid	Landowner	Total	Early	Late	Total	Archery	Total
1987	91,804	26,780	118,584	3,091	2,710	5,801	28,910	153,295
1988	101,338	28,002	129,340	3,565	3,618	7,183	30,020	166,543
1989	107,171	33,798	140,969	5,995	12,201	18,196	34,745	194,611
1990	106,781	27,106	133,887	6,602	15,949	22,551	35,217	192,551
1991	100,587	30,834	131,421	7,064	11,458	18,522	33,359	184,041
1992	100,461	30,084	130,545	8,280	10,978	19,315	34,165	186,436
1993	96,577	21,887	118,464	7,306	8,926	16,232	30,938	168,017
1994	102,773	22,809	125,582	8,113	9,737	17,850	34,222	180,525
1995	101,053	18,157	119,210	7,193	8,059	15,463	34,434	177,441
1996	106,746	28,080	134,826	8,806	11,820	20,626	36,351	202,834
1997	109,169	24,423	133,592	8,979	15,049	24,028	37,106	211,118
1998	114,358	25,960	140,318	9,504	12,721	22,225	39,506	223,419
1999	113,695	31,196	144,891	10,246	13,260	23,506	43,687	233,690
2000	113,728	32,116	145,844	10,279	15,242	25,521	44,658	229,800
2001	128,041	38,820	166,861	10,037	18,751	28,788	52,002	265,939
2002	118,973	42,989	161,962	9,807	19,479	29,286	51,534	265,185
2003	136,810	52,148	188,958	11,907	23,905	35,812	60,320	322,096
2004	147,797	53,682	201,479	13,125	29,237	42,362	67,393	353,172
2005	143,856	58,248	202,104	13,693	30,717	44,410	73,518	391,864
2006	149,650	40,831	190,481	12,664	32,492	45,156	76,358	377,525

Table 1.6. The dates, hours and zones for shotgun, archery, and muzzleloader seasons (1987-present).

		Shotgun		Archery		Muzzleloader	
Year	Zones	Dates	Hours	Dates	Hours	Dates	Hours
1987	1-10 *e*	Dec 5-9	Sunrise to	Oct 1-Dec 4 &	1/2 hr before	Oct 10-18	1/2 hr before
1987	1-10	Dec 12-20	Sunset	Dec 21-Jan 10	sunrise to	Dec 21-Jan 10	sunrise to
1988	1-10	Dec 3-7	"	Oct 1-Dec 2 &	1/2 hr after	Oct 15-23	1/2 hr after
1988	1-10	Dec 10-18	"	Dec 19-Jan 10	sunset	Dec 19-Jan 10	sunset
1989	1-10	Dec 2-6	"	Oct 1-Dec 1 &	"	Oct 14-Oct 22	"
1989	1-10	Dec 9-17	"	Dec 18-Jan 10		Dec 18-Jan 10	"
1990	1-10	Dec 1-5	"	Oct 1-Nov 30 &	"	Oct 13- Oct 21	"
1990	1-10	Dec 8-16	"	Dec 17-Jan 10		Dec 17-Jan 10	"
1991	1-10	Dec 7-11	"	Oct 1-Dec 6 &	"	Oct 12- Oct 20	"
1991	1-10	Dec 14-22	"	Dec 23-Jan 10		Dec 23-Jan 10	"
1992	1-10	Dec 5-9	"	Oct 1-Dec 4 &	"	Oct 10-Oct 18	"
1992	1-10	Dec 12-20	"	Dec 21-Jan 10		Dec 21-Jan 10	"
1993	2	Dec 4-8	"	Oct 1-Dec 3 &	"	Oct 9-Oct 17	"
1993	2	Dec 11-19	"	Dec 20-Jan 10		Dec 20-Jan 10	"
1994	Statewide	Dec 3-7	"	Oct 1-Dec 2 &	"	Oct 15-Oct 23	"
1994	Statewide	Dec 10-18	"	Dec 19-Jan 10		Dec 19-Jan 10	"
1995	Statewide *f*	Dec 2-6	"	Oct 1-Dec 1 &	"	Oct 14-Oct 22	"
1995	Statewide	Dec 9-17	"	Dec 18-Jan 10		Dec 18-Jan 10	"
1996	Statewide *g*	Dec 7-11	"	Oct 1-Dec 6 &	"	Oct 12-Oct 20	"
1996	Statewide	Dec 14-22	"	Dec 23-Jan 10		Dec 23-Jan 10	"
1997	Statewide *h*	Dec 6-10	"	Oct 1-Dec 5 &	"	Oct 11-Oct 18	"
1997	Statewide	Dec 13-21	"	Dec 22-Jan 10		Dec 22-Jan 10	"
1998	Statewide *h*	Dec 5-9	"	Oct 1-Dec 4 &	"	Oct 17-Oct 25	"
1998	Statewide	Dec 12-20	"	Dec 21-Jan 10		Dec 21-Jan 10	"
1999	Statewide *h*	Dec 4-8	"	Oct 1-Dec 3 &	"	Oct 16-Oct 24	"
1999	Statewide	Dec 11-19	"	Dec 20-Jan 10		Dec 20-Jan 10	"
2000	Statewide *i*	Dec 2-6	"	Oct 1-Dec 1 &	"	Oct 14-Oct 22	"
2000	Statewide	Dec 9-17	"	Dec 18-Jan 10		Dec 18-Jan 10	"
2001	Statewide *h*	Dec 1-5	"	Oct 1-Nov 30 &	"	Oct 13- Oct 21	"
2001	Statewide	Dec 8-16	"	Dec 17-Jan 10		Dec 17-Jan 10	"
2002	Statewide *h*	Dec 7-11	1/2 hr before	Oct 1-Dec 6 &	"	Oct 12- Oct 20	"
2002	Statewide	Dec 14-22	sunrise to	Dec 23-Jan 10		Dec 23-Jan 10	"
2003	Statewide *h*	Dec 6-10	1/2 hr after	Oct 1-Dec 5 &	"	Oct 11- Oct 19	"
2003	Statewide	Dec 13-21	sunset	Dec 22-Jan 10		Dec 22-Jan 10	"
2004	Statewide *h*	Dec 4-8	"	Oct 1-Dec 3 &	"	Oct 16- Oct 24	"
2004	Statewide	Dec 11-19	"	Dec 20-Jan 10		Dec 20-Jan 10	"
2005	Statewide *h*	Dec 3-7	"	Oct 1-Dec 2 &	"	Oct 15- Oct 23	"
2005	Statewide	Dec 10-18	"	Dec 19-Jan 10		Dec 19-Jan 10	"
2006	Statewide *h*	Dec 2-6	"	Oct 1-Dec 1 &	"	Oct 14- Oct 22	"
2006	Statewide	Dec 9-17	"	Dec 18-Jan 10	"	Dec 18-Jan 10	"

e - Unlimited bucks-only statewide in all following years

f - 34 counties were any-sex during 1st season and 74 were bucks-only during first 7 days of the 2nd season

g - 35 counties were any-sex during 1st season and 26 were bucks-only during the first 5 days of the 2nd season

h - all counties were any-sex during both seasons

i - 17 counties were buck-only during first 3 days of first season

Table 1.7. Results from controlled hunts in the special deer management zones for 2006-2007.

AREA	WEAPON	# ANTLERLESS LICENSES	LICENSES SOLD	HARVEST
Amana Colonies	Archery & Firearm	700	462	283
Ames (City)	Archery	100	11	3
Ames (Perimeter)	Archery & Firearm	100	33	6
Backbone State Park	Firearms	200	165	124
Bellevue State Park (Archery)	Archery & Firearm	100	52	27
Bettendorf & Riverdale (City)	Archery	300	53	41
Cedar Rapids (City)	Archery	600	435	315
Clinton (City)	Archery	300	74	36
Coralville (City)	Archery	400	281	164
Davenport (City)	Archery	200	103	33
Denison	Archery	50	16	7
Desoto NWR	Firearms	340	196	70
Dubuque (City)	Archery	400	166	111
Dubuque (County)	Archery & Firearm	400	69	27
Elk Rock State Park	Archery	50	48	29
Green Valley State Park	Firearms	50	50	43
Iowa Army Ammunition Plant	Archery & Firearm	1,000	702	262
IAAP (Perimeter)	Archery & Firearm	400	70	25
Iowa Falls	Archery	100	17	12
Johnson County	Archery & Firearm	500	268	101
Kent Park	Archery & Firearm	160	118	59
Lacey-Keosauqua State Park	Archery	150	41	26
Lake Ahquabi	Firearms	50	51	21
Lake Darling	Firearms	200	100	63
Lake Keomah	Archery	50	48	14
Lake Macbride	Archery	150	122	58
Lake Manawa	Archery	35	34	19
Lake of Three Fires	Firearms	45	45	32
Lake Panorama	Archery & Firearm	230	103	31
Lake Wapello	Firearms	150	48	33
Ledges State Park	Firearms	50	50	21
Linn County	Archery & Firearm	500	270	106
Maquoketa Caves	Archery & Firearm	50	10	1
Muscatine	Archery	200	76	36
Ottumwa (City)	Archery	300	252	146
Palisades Kepler State Park	Archery	100	31	12
Pikes Peak/McGregor (City)	Archery	200	71	47
Pine Lake State Park	Archery	50	35	22
Polk-Dallas County	Archery & Firearm	700	700	296
Rock Creek State Park	Archery	50	22	12
Scott County Park	Firearms	100	93	48
Springbrook State Park	Firearms	45	34	27
Squaw Creek	Archery	150	83	38
Viking Lake State Park	Firearms	50	47	39
Wapsi Environmental Center	Firearms	30	18	12
Waterloo-Cedar Falls (City)	Archery	290	155	65
Washatee	Archery & Firearm	250	41	21
Depredation & Shooting Permits	Archery & Firearm	2,219	2,219	1,052
TOTALS		12,144	7,726	3,793

Table 1.8. Reported deer and ranking for each season by county for total kill during the 2006-2007 deer season.

	Harvest							Rank						
	Paid	Muzzleloader				Non-			Muzzleloader				Non-	
County	Shotgun	Early	Late	Archery	Youth	resident	Total	Shotgun	Early	Late	Archery	Youth	resident	Total
Clayton	3,969	220	262	811	109	171	7,389	1	1	2	1	1	8	1
Van Buren	1,941	122	251	547	49	437	4,742	4	3	3	3	7	1	2
Allamakee	2,552	132	190	471	31	308	4,570	2	2	5	7	19	3	3
Jackson	2,026	105	115	426	44	137	3,624	3	5	21	9	11	14	4
Dubuque	1,740	113	75	466	53	35	3,222	7	4	45	8	5	51	5
Davis	1,358	64	188	335	38	169	3,170	9	21	6	19	13	9	6
Fayette	1,750	98	158	425	47	77	3,166	6	7	8	10	8	26	7
Winneshiek	1,795	66	127	288	24	121	3,043	5	19	17	25	39	15	8
Johnson	1,351	87	114	529	51	55	3,011	10	9	23	4	6	38	9
Appanoose	1,277	69	272	369	35	249	3,002	11	16	1	13	16	4	10
Linn	1,079	96	171	699	56	41	2,956	22	8	7	2	4	47	11
Jones	1,532	84	123	335	29	57	2,724	8	11	18	20	24	36	12
Delaware	1,182	105	115	331	69	25	2,545	15	6	22	21	2	63	13
Monroe	1,165	65	143	397	17	175	2,515	17	20	12	11	50	7	14
Warren	1,194	62	128	505	46	103	2,489	14	24	15	5	9	18	15
Taylor	1,074	25	116	149	5	397	2,478	24	67	20	57	88	2	16
Iowa	1,153	55	146	345	57	69	2,465	18	30	10	17	3	27	17
Washington	1,273	41	152	267	17	61	2,416	12	45	9	30	51	32	18
Lee	1,169	49	65	287	45	59	2,291	16	34	54	26	10	34	19
Marion	1,232	68	133	336	36	40	2,260	13	17	14	18	14	49	20
Guthrie	1,091	80	136	304	32	145	2,239	20	12	13	24	18	11	21
Decatur	872	35	128	189	13	151	2,168	33	51	16	43	66	10	22
Madison	996	51	109	391	24	103	2,110	28	32	24	12	36	19	23
Clinton	1,049	56	77	358	23	47	2,003	25	29	43	15	42	44	24
Tama	1,016	71	208	282	40	51	1,969	26	14	4	28	12	41	25
Jefferson	1,074	21	76	204	12	99	1,967	23	71	44	41	69	20	26
Wayne	802	35	146	174	3	224	1,952	40	52	11	48	96	5	27
Wapello	789	27	105	269	30	55	1,936	44	65	27	29	22	39	28
Ringgold	919	28	96	126	5	190	1,935	32	62	31	62	89	6	29
Cedar	1,084	63	71	323	27	21	1,935	21	22	48	23	27	72	30
Des Moines	832	36	75	226	25	56	1,897	38	49	46	35	35	37	31
Keokuk	1,151	46	81	177	17	62	1,866	19	40	40	46	52	31	32
Lucas	841	29	86	238	26	145	1,809	36	61	34	34	33	12	33
Muscatine	920	49	68	365	31	25	1,803	31	35	53	14	20	64	34
Louisa	1,011	31	79	220	31	32	1,771	27	55	41	36	21	53	35
Henry	867	41	70	206	27	58	1,765	34	46	52	39	29	35	36
Pottawattamie	794	87	107	356	24	52	1,677	43	10	25	16	37	40	37
Jasper	939	55	93	258	30	30	1,657	30	31	32	32	23	56	38
Mahaska	969	29	100	153	15	65	1,641	29	60	29	55	59	29	39
Page	818	36	71	151	15	111	1,617	39	50	50	56	60	17	40
Union	837	17	100	137	6	78	1,573	37	80	30	60	85	25	41
Harrison	784	44	100	187	15	113	1,533	46	43	28	44	57	16	42
Bremer	773	57	81	211	35	35	1,520	47	28	39	38	17	52	43
Clarke	785	32	27	176	14	64	1,476	45	53	80	47	61	30	44
Benton	729	61	78	241	27	22	1,467	50	25	42	33	28	70	45
Woodbury	846	45	105	266	24	30	1,457	35	41	26	31	40	57	46
Dallas	796	48	84	285	18	13	1,450	42	37	38	27	47	77	47
Scott	546	47	63	495	21	14	1,436	62	39	55	6	44	76	48
Adams	618	31	119	102	5	91	1,415	58	57	19	69	90	22	49
Chickasaw	744	67	57	206	27	26	1,397	48	18	62	40	30	61	50
Monona	721	61	85	171	18	139	1,386	51	26	37	49	49	13	51
Butler	799	49	58	155	15	12	1,362	41	36	60	54	58	80	52
Adair	740	28	72	109	16	60	1,289	49	63	47	67	54	33	53
Polk	426	39	56	326	24	32	1,277	69	47	63	22	38	54	54
Fremont	492	21	86	195	18	96	1,256	65	73	35	42	48	21	55
Montgomery	628	19	87	108	10	82	1,243	55	76	33	68	75	24	56
Howard	648	47	59	119	28	42	1,216	53	38	59	64	26	46	57
Hardin	604	71	85	163	26	45	1,179	59	15	36	50	34	45	58
Marshall	702	50	70	157	19	25	1,173	52	33	51	53	46	65	59

Table 1.8 (cont.). Reported deer and ranking for each season by county for total kill during the 2006-2007 deer season.

	Harvest							Rank						
	Paid	Muzzleloader				Non-			Muzzleloader				Non-	
County	Shotgun	Early	Late	Archery	Youth	resident	Total	Shotgun	Early	Late	Archery	Youth	resident	Total
Boone	523	73	57	187	21	51	1,148	63	13	61	45	45	42	60
Poweshiek	625	31	60	117	27	26	1,130	57	56	58	66	32	62	61
Floyd	627	44	71	129	16	29	1,120	56	44	49	61	53	59	62
Cass	645	17	52	70	3	90	1,087	54	81	65	74	97	23	63
Mills	409	39	62	215	11	48	1,074	70	48	57	37	72	43	64
Buchanan	569	21	37	163	27	11	1,023	61	72	72	51	31	82	65
Mitchell	492	45	63	123	14	67	966	66	42	56	63	62	28	66
Black Hawk	498	59	39	148	28	9	964	64	27	70	58	25	84	67
Webster	461	63	37	142	36	41	927	67	23	71	59	15	48	68
Crawford	582	19	37	74	7	25	864	60	77	73	73	80	67	69
Cherokee	439	15	42	86	14	24	718	68	85	68	72	64	68	70
Story	319	32	32	158	13	5	658	73	54	75	52	67	94	71
Clay	317	28	54	88	16	40	657	74	64	64	71	56	50	72
Greene	363	30	28	62	14	25	655	71	59	78	76	65	66	73
Franklin	357	27	23	59	7	30	592	72	66	86	79	82	58	74
Plymouth	275	18	48	118	14	5	540	78	79	66	65	63	93	75
Cerro Gordo	247	25	30	97	16	7	519	84	69	76	70	55	90	76
Sac	281	15	25	58	22	10	486	76	86	84	80	43	83	77
Kossuth	286	17	44	55	4	21	485	75	82	67	83	92	73	78
Shelby	278	17	40	47	8	17	471	77	83	69	88	78	75	79
Lyon	274	31	33	49	12	23	469	79	58	74	87	71	69	80
Hamilton	232	20	22	56	6	27	451	85	75	87	82	86	60	81
Sioux	264	25	27	62	24	9	447	80	68	81	77	41	85	82
Wright	251	20	26	60	10	12	441	83	74	83	78	76	81	83
Carroll	259	19	19	58	12	5	440	81	78	89	81	70	95	84
Palo Alto	258	10	25	37	11	18	429	82	92	85	92	74	74	85
Worth	208	22	29	64	7	22	382	86	70	77	75	81	71	86
Buena Vista	197	12	28	37	11	13	372	88	90	79	91	73	78	87
Audubon	201	7	20	33	0	3	328	87	97	88	93	99	99	88
O'Brien	150	14	16	50	10	9	317	93	88	92	86	77	86	89
Humboldt	191	12	10	39	7	4	312	89	91	95	90	84	97	90
Winnebago	185	15	16	50	7	13	310	90	87	91	85	83	79	91
Dickinson	165	16	27	42	13	3	294	92	84	82	89	68	98	92
Emmet	147	10	16	51	6	31	292	95	93	93	84	87	55	93
Pocahontas	168	6	4	26	5	6	246	91	98	99	95	91	92	94
Hancock	142	14	7	29	4	9	244	96	89	96	94	93	87	95
Osceola	148	9	19	15	8	8	244	94	95	90	98	79	89	96
Ida	125	4	14	21	4	9	210	97	99	94	96	94	88	97
Grundy	107	8	5	10	1	7	181	98	96	98	99	98	91	98
Calhoun	89	10	5	20	4	5	159	99	94	97	97	95	96	99
Total	76,218	4,385	7,747	20,102	2,154	6,344	150,552							

Table 1.9. A summary of archery season dates, hours, success rates, and other information (1985 - present).

Year	Dates	Hours	% Bucks in Harvest	Success Rate	Mean Days/Hunter	General Comments
1985	Oct 12-Dec 6	1/2 hr before sunrise	68	26	15	$ 20 fee.
1986	Oct 11-Dec 5	to 1/2 hr after sunset	72	38	17	Limit 1/Bow and 1/Gun
1987	Oct 1-Dec 4 &	"	68	35		Added late season.
	Dec 21-Jan 10	"				
1988	Oct 1-Dec 2 &	"	71	35	16	
	Dec 19-Jan 10	"				
1989	Oct 1-Dec 1 &	"	73	36	20	Bonus 2nd tag for antlerless deer
	Dec 18-Jan 10	"				statewide
1990	Oct 1-Nov 30 &	"	65	32	19	Bonus tag for antlerless early or
	Dec 17-Jan 10	"				any-sex late, statewide
1991	Oct 1-Dec 6 &	"	73	28	17	Bonus tag for antlerless deer available
	Dec 23-Jan 10	"				only in zones 3a, 4a, 5a and 6. $25 fee.
1992	Oct 1-Dec 4 &	"	69	28	15	Bonus tag for antlerless deer available
	Dec 21 -Jan 10	"				only in bonus antlerless zone if no gun tag.
1993	Oct 1-Dec 3 &	"	73	32	17	Bonus tag for antlerless deer available
	Dec 20-Jan 10	"				only in bonus antlerless zone if no gun tag.
1994	Oct 1-Dec 2&	"	77	37	16	Bonus tag for antlerless deer available
	Dec 19-Jan 10	"				only in bonus antlerless zone if no gun tag.
1995	Oct 1-Dec 1&	"	76	39	17	Bonus tag for antlerless deer available
	Dec 18-Jan 10	"				only in bonus antlerless zone if no gun tag.
1996	Oct 1-Dec 6&	"	78	37	16	Bonus tag for antlerless deer available
	Dec 23-Jan 10	"				only in bonus antlerless zone if no gun tag.
1997	Oct 1-Dec 5&	"	71	42	17	Bonus tag for antlerless deer available only in
	Dec 22-Jan 10	"				bonus antlerless zone. Could get firearm license also.
1998	Oct 1-Dec 4&	"	76	34	15	Bonus tag for antlerless deer available only in
	Dec 21-Jan 10	"				bonus antlerless zone. Could get firearm license also.
1999	Oct 1-Dec 3&	"	79	37	16	Bonus tag for antlerless deer available only in
	Dec 20-Jan 10	"				bonus antlerless zone. Could get firearm license also.
2000	Oct 1-Dec 1&	"	80	44	17	Bonus tag for antlerless deer available only in
	Dec 18-Jan 10	"				bonus antlerless zone. Could get firearm license also.
2001	Oct 1-Nov 30&	"	75	37	17	Bonus tag for antlerless deer available in every county.
	Dec 17-Jan 10	"				Could get firearm license also.
2002	Oct 1-Dec 6 &	"	66	39	17	Bonus tag for antlerless deer available in every county.
	Dec 23-Jan 10	"				Could get firearm license also.
2003	Oct 1-Dec 5 &	"	54	44	18	Bonus tag for antlerless deer available in every county.
	Dec 22-Jan 10	"				Could get firearm license also.
2004	Oct 1-Dec 3 &	"	54	46	18	Bonus tag for antlerless deer available in every county.
	Dec 20-Jan 10	"				Could get firearm license also.
2005	Oct 1-Dec 2 &	"	54	53	17	Bonus tag for antlerless deer available in every county.
	Dec 19-Jan 10	"				Could get firearm license also.
2006	Oct 1-Dec 1 &	"	57	29 *a*	NA	Tags for antlerless deer available in 79 counties.
	Dec 18-Jan 10	"				Could get firearm license also.

a – Not comparable to previous years.

Table 1.10. A summary of muzzleloader season dates, hours, success rates, and other information (1984 - present).

Year	Dates	Hours	Percent Bucks in Harvest	Success Rate	Mean Days/Hunter	General Comments
1984	Dec 15-21	Sunrise to Sunset	45	22	6	1500 any-sex quota. $15 fee.
1985	Dec 21-27	"	44	34	4	2000 A-S quota. $20 fee.
1986	Oct 11-17	1/2 hr before	100	17	4	2500 buck-only quota.
	Dec 20-Jan 4	sunrise to	43	40	6	Unlimited any-sex quota.
1987	Oct 10-18	1/2 hr after	55	52	8	3000 A-S quota
	Dec 21-Jan 10	sunset	46	42	6	Unlimited A-S quota.
1988	Oct 15-23	"	55	55	4	3500 A-S quota
	Dec 19-Jan 10	"	41	39	6	Unlimited A-S quota.
1989	Oct 14-22	"	55	49	5	5000 A-S quota
	Dec 18-Jan 10	"	28	39	9	Unlimited A-S quota. Could hunt during shotgun & late muzzleloader seasons.
1990	Oct 13-21	"	53	46	5	5000 A-S quota
	Dec 17 -Jan 10	"	50	45	8	Could hunt shotgun & late muzzleloader season.
1991	Oct 12-20	"	54	47	5	5000 A-S quota
	Dec 23 -Jan 10	"	40	33	8	Could hunt shotgun & late muzzleloader season, but all 2nd tags valid for antlerless only in zones 3a, 4a, 5a & 6.
1992	Oct 10-18	"	60	45	4	7500 A-S quota.
	Dec 21-Jan 10	"	40	36	8	All second licenses antlerless, Zones 4a, 5a & 6.
1993	Oct 9-17	"	71	34	5	7500 license quota, 65 counties buck-only.
	Dec 20-Jan 10	"	46	39	8	Antlerless in 14 counties, 35 counties buck-only.
1994	Oct 15-23	"	78	36	5	7500 license quota, 67 counties buck-only.
	Dec 19-Jan 10	"	52	39	8	Antlerless in 14 counties, 35 counties buck-only.
1995	Oct 14-22	"	73	43	5	7500 license quota, 69 counties buck-only.
	Dec 18-Jan 10	"	55	46	8	No antlerless tags, 29 counties modified buck-only.
1996	Oct 12-20	"	75	39	5	7500 license quota, 64 counties buck-only.
	Dec 23-Jan 10	"	49	46	7	Antlerless in 15 1/2 counties, 26 modified buck-only.
1997	Oct 11-19	"	55	62	4	7500 license quota, no counties buck-only
	Dec 22-Jan 10	"	44	52	7	Antlerless in 19 1/2 counties, no counties buck-only.
1998	Oct 17-25	"	64	52	5	7500 license quota, no counties buck-only
	Dec 21-Jan 10	"	54	50	7	Antlerless in 20 counties, no counties buck-only.
1999	Oct 16-24	"	60	57	4	7500 license quota, no counties buck-only
	Dec 20-Jan 10	"	52	46	7	Antlerless in 21 counties, no counties buck-only.
2000	Oct 14-22	"	60	53	4	7500 license quota, 16 counties modified buck-only
	Dec 18-Jan 10	"	50	47	7	Antlerless in 21 counties, no counties buck-only.
2001	Oct 13-21	"	54	53	4	7500 license quota, no counties buck-only
	Dec 17-Jan 10	"	52	44	8	Antlerless in all counties, no counties buck-only.
2002	Oct 12- Oct 20	"	65	56	4	7500 license quota, no counties buck-only
	Dec 23-Jan 10	"	41	46	6	Antlerless in all counties, no counties buck-only.
2003	Oct 11- Oct 19	"	54	55	4	7500 license quota, no counties buck-only
	Dec 22-Jan 10	"	37	51	6	Antlerless in all counties, no counties buck-only.
2004	Oct 16- Oct 24	"	55	58	5	7500 license quota, no counties buck-only
	Dec 20-Jan 10	"	37	48	6	Antlerless in all counties, no counties buck-only.
2005	Oct 15- Oct 23	"	53	58	4	7500 license quota, no counties buck-only
	Dec 19-Jan 10	"	32	54	6	Antlerless in all counties, no counties buck-only.
2006	Oct 14-22	"	55	43	NA	7500 license quota, no counties buck-only
	Dec 18-Jan 10	"	41	27 *a*	NA	Antlerless in 79 counties, no counties buck-only.

a – Not comparable to previous years.

Table 1.11. The results of the deer population surveys (1976 - present).

	Spotlight Survey		Aerial Survey			Traffic Kill Per Billion Vehicle Mi.	
Year	Mean Count	Percent Change	Weighted Count *a*	Percent Change	Traffic Kill	Number	Percent Change
1976	-	-	-	-	2,537	225	-1%
1977	-	-	-	-	2,929	252	12%
1978	6.9	-	-	-	2,872	241	-4%
1979	6.8	-1%	-	-	3,005	259	7%
1980	7.1	4%	-	-	3,743	335	29%
1981	5.9	-17%	-	-	4,164	365	9%
1982	12.0	103%	-	-	4,805	412	13%
1983	13.3	11%	5,903	-	5,335	448	9%
1984	16.4	23%	6,387	8%	6,177	500	12%
1985	15.4	-6%	7,607	19%	5,925	495	-1%
1986	18.5	20%	9,790	29%	7,225	593	20%
1987	18.2	-2%	-	-	8,440	678	14%
1988	20.8	14%	10,289	5% *b*	9,248	707	4%
1989	26.8	29%	9,672	-6%	8,914	655	-7%
1990	24.0	-10%	7,070	-27%	8,799	607	-7%
1991	23.0	-4%	9,191	30%	8,428	590	-3%
1992	23.0	0%	8,235	-10%	9,135	616	4%
1993	30.0	30%	8,680	5%	9,576	624	1%
1994	25.8	-14%	10,483	21%	10,438	663	6%
1995	35.3	37%	10,877	4%	11,167	699	5%
1996	51.1	45%	12,051	11%	12,276	748	7%
1997	51.1	0%	13,902	15%	13,148	778	4%
1998	55.9	9%	12,651	-9%	12,427	714	-8%
1999	59.9	7%	14,928	18%	11,366	637	-11%
2000	57.2	-5%	15,375	3%	11,114	642	1%
2001	81.4	42%	15,793	3%	14,243	799	24%
2002	80.0	-2%	13,107	-17%	12,377	662	-17%
2003	92.5	16%	15,676	20%	13,720	726	10%
2004	101.1	9%	18,028	15%	15,361	803	11%
2005	104.9	4%	15,324	-15%	14,364	760	-5%
2006	101.8	-3%	12,565	-18%	14,940	783	3%
2007	118.5	16%	13,445	7%			

a - adjusted for missing counts

b - change form 1986 to 1988